RICOH Americas Corporation

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Product Support Guide
M052 / M053 / M054

Introduction

Model Type	Black And White
Launch Date	November 2011
S/N Configuration	S90 S91 S92
Product Code	M052 M053 M054

Brand/Model Name

Product Code	Lanier	Ricoh	Savin
M052	SP5200S	Aficio SP 5200S	SP5200S
M053	SP5210SF	Aficio SP 5210SF	SP5210SF
M054	SP5210SR	Aficio SP 5210SR	SP 5210SR

Product Concept

Customers are demanding low-cost alternatives to A3 MFPs. Competitors like HP and Lexmark have obliged, providing customers with fully functional workgroup caliber MFPs while maintaining their printer business model. These printer-based devices feature low acquisition costs, small footprints and are customer serviceable. Since HP and Lexmark first introduced this segment of devices, customers have embraced these low cost alternatives.

Since the creation of the market segment in 2005, this market has grown rapidly. Forecasts from analysts like IDC predict continued growth over the next 4 years with estimated CAGR of over 20%rates

Ricoh has responded to these market pressures by developing its own line A4
MFPs. The M052 series is aimed squarely at the heart of the A4 MFP market.

Order Number

Main Frame

Item	Model Name	EDP Code	Notes
Lanier Ricoh Savin	SP 5200S Aficio SP 5200S SP 5200S	406851	Basic Model Copy Printer Scanner
Lanier Ricoh Savin	SP 5210SF Aficio SP 5210SF SP 5210SF	406852	Fax Model Copy Printer Scanner Fax
Lanier Ricoh Savin	SP 5210SR Aficio SP 5210SR SP 5210SR	406853	Finisher Mainframe Copy Printer

* All Models include Java Card, Language Card, Security Card, and HDD.

Options

Item	Description	Product Code	EDP Code	Common / Unique
Paper Feed Unit TK1090	1 Tray Paper Bank	M375-17	406599	U
Paper Feed Unit TK1100	1 Tray Paper Bank with casters	M376-17	406600	U
IPDS Option Type 5210	IPDS Option	D571	406816	U
Data Overwrite Security Unit Type I	Data Overwrite Security Unit	D362	415125	C (D037) Standard with machine but also available an option for CC certification
IEEE802.11a/g Type J	IEEE802.11a/g	D377	414008	C (M022)
Bluetooth Interface Type D	Bluetooth Interface		415818	
Medium Cabinet	Medium Cabinet Type D	N/A	100467FNG	Must be used with only 1 TK1090 Paper Feed Unit
Tall Cabinet	Tall Cabinet Type C	N/A	100466FNG	Can not be used with TK1090. For Mainframe Only

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Item	Description	Product Code	EDP Code	Common / Unique
Remote Communication Gate A	UZ-A1	D549	415135	C (M022)
Fax Option Type SP5200	Fax Option	M381	406594	U
Memory Unit Type B	32MB Memory Dimm for Fax Option	N/A	001342MIU	C (M022)
Gigabit Ethernet Type A	Gigabit Ethernet	G874	402547	C (D037)
Browser Unit Type E	Browser Option	D430	414715	C (D037)
Optional Counter Interface	Optional Counter Interface Type A	B870	413012	C (D037)
Embedded HotSpot	Embedded HotSpot Type E	N/A	415622	
1 Year HotSpot Service Subscription Extension	1 Year HotSpot Service Subscription Extension	N/A	006174MIU	
2 Year HotSpot Service Subscription Extension	2 Year HotSpot Service Subscription Extension	N/A	003357MIU	
3 Year HotSpot Service Subscription Extension	3 Year HotSpot Service Subscription Extension	N/A	004813MIU	
4 Year HotSpot Service Subscription Extension	4 Year HotSpot Service Subscription Extension	N/A	004814MIU	
Telephone Handset Type 1018	Telephone Handset	N/A	410781	C
File Format Converter Type E	Media Link Board	D377	414007	C (M022)

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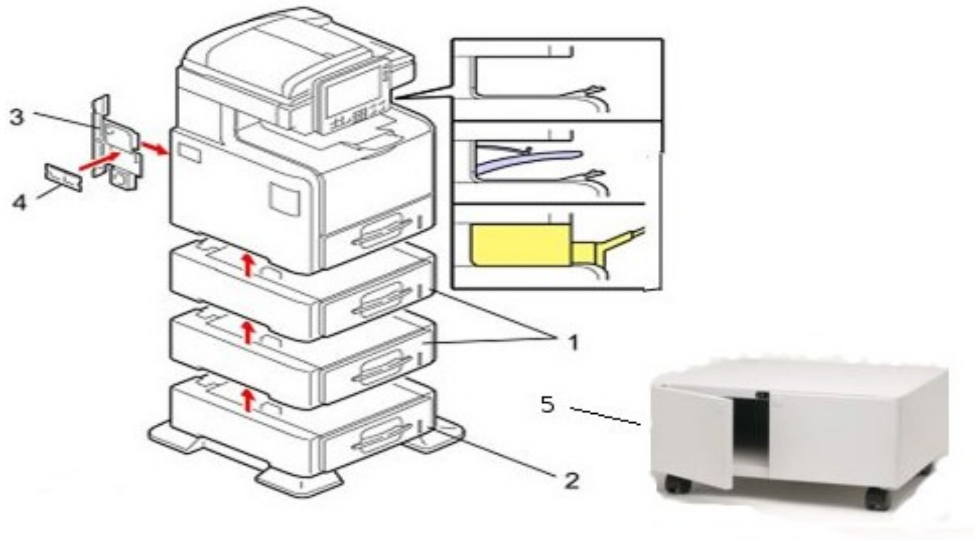
Supplies/Yields

Item	Name	Order Code	Target Yield
Ricoh			
Ricoh Black Print Cartridge 25K AIO	Print Cartridge SP 5200HA	406683	25K
Savin			
Savin Black Print Cartridge 25K AIO	Print Cartridge SP 5200HA	406849	25K
Lanier			
Lanier Black Print Cartridge 25K AIO	Print Cartridge SP 5200HA	406850	25K
Ricoh-Savin-Lanier			
Staple Set Cartridge	Staple Type T	415009	5K
Staple Refill Cartridge	Refill Staple Type T	415010	10K
Maintenance Kit SP 5200	Includes Fusing Unit, Transfer Roller, 5 feed rollers, and 5 friction pads	406686	120K

Supply Yield Condition:

2. ISO/IEC19752 is used to measure the above toner yield.
3. The condition is standard temperature and humidity.
4. This yield number may change depending on the circumstances and printing conditions.
5. Starter AIO (included in a carton box of main unit): 6K pages / Cartridge.

Option Compatibility

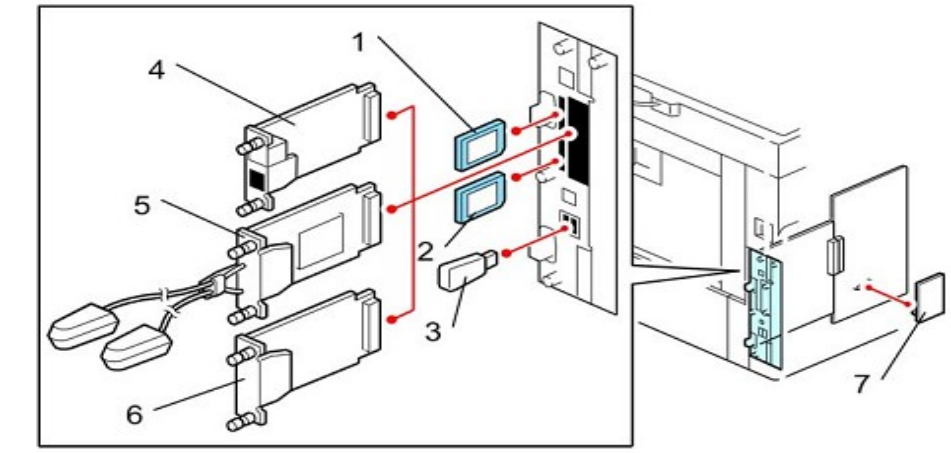


Number	Option Name	Remarks
1	Paper Feed Unit TK1090 (no casters)	Two Units can be installed
2	Paper Feed Unit TK1100 (with casters)	Only one unit can be installed. Cannot be installed if cabinet is used.
3	Fax Option Type SP5200	Standard for M053. Options for M052 and M054
4	Memory Option Type B	Fax Memory. Requires Fax Option
5	Cabinets	One TK1090 must be installed with medium cabinet. No TK1090 can be installed with Tall Cabinet

Branding Information

Branding is required as the machines are shipped as a generic version.
Ricoh version machines: You must attach the model label (provided) to the front cover.
Savin/Lanier: You must attach the model label (provided) to the front cover and set the Plug and Play name with SP 5-907.

MFP Options



Number	Option Name	Remarks
1	IPDS Unit Type 5210	SD Slot 1
2	Browser Unit Type E	SD Slot 2 during install only
3	Bluetooth Interface Type D	One of the USB slots
4	Gigabit Ethernet Board Type A Type C	IF Slot *
5	IEEE802.11a/g Interface Unit Type J, K	IF Slot *
6	File Format Converter	IF Slot *

* Only one option can be installed at a time

Installation

Installation Requirements

Temperature Range:	$10\frac{238}{92}$ C to $32\frac{238}{92}$ C ($50\frac{238}{92}$ F to $89.6\frac{238}{92}$ F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight)
Ventilation:	3 times/hr/person
Ambient Dust:	Less than 0.1 mg/m^3

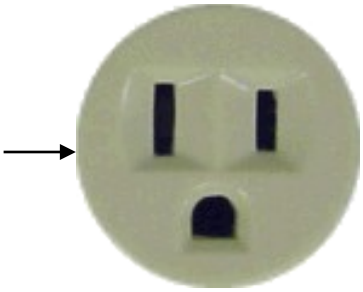
Avoid areas exposed to sudden temperature changes:
Areas directly exposed to cool air from an air conditioner.
Areas directly exposed to heat from a heater.

Do not place machine where it will be exposed to corrosive gas or vapor.
Do not install the machine at any location over 2,500m(8,200 ft.) above sea level.
Place the machine on a strong and level base. Inclination on any side should be no more than 5mm (0.2")
Do not place the machine where it may be subject to strong vibrations.
Machine level

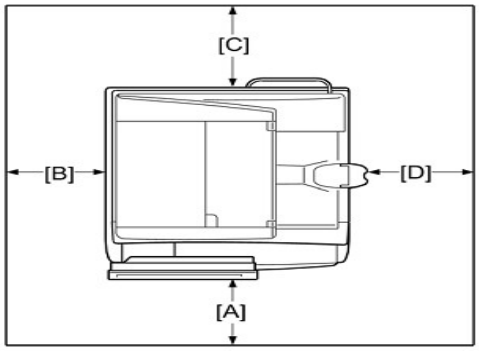
- Front to back: within 5mm (0.2") of level
- Right to left: within 5mm (0.2") of level

Power Requirements

Input voltage level: 110 - 120 V, 60Hz:12A
Do not place anything on power cord.
The required wall outlet is a NEMA 5-15R (receptacle)



Space Requirements



A (Front)	Over 350mm (29.6")
B (Left)	Over 100 mm (3.9")
C (Rear)	Over 300mm(11.82")
D (Right)	Over 100 mm (3.9")

Foot Print

Dimensions: Non Finisher Model(W x D x H): 18.1 x 20.1 x 27.0 (including ARDF)
Finisher Model: 18.1 x 24.2 x 27.0 (including ARDF)

Power Consumption / Noise Emission

Power Consumption

Max Power	1500W or less
Energy Saver	8W or less

Noise Emission

Sound Power Level	Stand by / Energy Saving	Mainframe	M052: 46.5 dB(A) M053 M054: 48.0 dB(A)
		System	M052: 46.5 dB(A) M053 M054: 48.0 dB(A)
	Printing	Mainframe	M052: 71.8 dB(A) M053 M054: 72.0 dB(A)
		System	M052: 75.8 dB(A) M053 M054: 76.0 dB(A)
Sound Pressure Level (ISO7779)	Stand by / Energy Saving	Mainframe	M052: 40.5 dB(A) M053 M054: 42.0 dB(A)
		System	M052: 40.5 dB(A) M053 Mo054: 42.0 dB(A)
	Printing	Mainframe	M052: 65.8 dB(A) M053 M054: 66.0 dB(A)
		System	M052: 69.8 dB(A) M053 M054: 70.0 dB(A)

Installation Times

Mainframe: 15 min

Unit	Installation Time (Minutes)
Paper Feed Unit TK 1090	10
Paper Feed Unit TK1100	10
IPDS Unit	5
Bluetooth Interface	5
FAX unit	10
Fax SAF Memory	5
Media Link Board	10
Gigabit Ethernet	5
Browser card	5
IEEE802.11a/g	5

Storage/Transportation

Condition for Storage			Condition for Transportation		
	Temperature	Humidity	Temperature	Humidity	Storage Period
Main unit	-30℃ to 40℃	15% - 80%	-30℃ to 40℃	15% ~ 95%	12 months
AIO	-30℃ to 40℃	15% - 80%	-30℃ to 40℃	15% ~ 95%	24 months
Maintenance Kit	-30℃ to 50℃	15% - 80%	-30℃ to 50℃	15% ~ 95%	24 months
1) Temperature gradient should be under 20℃/hour.					
2) Please prevent from dew					

Parts / Special Tools / Maintenance

PM Parts / Yields

Mainframe: M052 M053 M054

Unique/Common
U: Unique for this model
C: Common with listed model

PM Kit - EDP 406686

Part Number	Description	Q'ty/ Unit	Expected Yield (Prints)	Unique or Common
Transfer				
M0523871	Transfer Roller	1	180k	U
Fusing				
M0520211	Fusing Unit	1	200k	U
Paper Feed				
G0523103	Paper Feed Roller	1	230k	U
G0963066	Friction Pad	1	230K	U

Note: All Parts are User replaceable parts – Part of PM Kit

Special Tools & Lubricants

The following special tools should be prepared for maintenance of the new model in the field:

Unique or Common:
U: **Unique for this model**

Item	Part Number	Description	Q'ty	Unique or Common
1	B6455010	SD Card	1	C (General)
2	VSSM9000	Digital Multimeter – FLUKE87	1	C (General)
3	A2579300	Grease Barrierta – S552R	1	C (General)
4	52039502	Silicon Grease G-501	1	C (General)

Target Reliability

Items	M052 / M053 / M054
ACV	5.5K/month
MAX CV	15k/Month
PM Interval	120k

Specifications / Documentation

Mainframe			
Type			Desktop
Technology		Reading element	Flatbed with CCD array image-sensor
		Printing processing	Laser beam scanning & Electro photographic printing, Mono component toner development
Resolution (dpi, bit/pixel)			1200 x 600 dpi
Printing Speed	General Paper	A4/LT	M052:45ppm (LT:47ppm), M054:50ppm (LT:52ppm), M053:50ppm (LT:52ppm)
First Print Speed			7.5 sec or less (A4/LT SEF)
Duplex Printing			Auto (Standard, approx 90% productivity)
Dimensions (WxDxH)			M052/M054: 460* x 510 x 686 mm M053: 460* x 615 x 686 mm *For width, excluded from partial +10mm
Weight			M052:Less than 45kg, M054:Less than ~~50 kg~~ 47kg, M053:Less than 53kg
Input capacity	Standard	Std Tray	550 sheets (80 g/m^2)
		Bypass tray	100 sheet
		ADF	50 sheets (80 g/m^2)
	Op. Paper Tray	Paper Feed Unit	550 sheets (80 g/m^2) (Up to 3 paper feed units can be added)

Mainframe			
	Max		Up to 2300sheets total capacity (Std tray + Option x 3 + Bypass)
Output capacity	Standard Tray	Face down	M052: Up to 500 sheets (A4/LT 80g/㎡,20lb) M054: Up to 600 sheets (A4/LT 80g/㎡,20lb) M053: Up to 250 sheets (A4/LT 80g/㎡,20lb)
Input Paper Size	Standard Tray		A4, A5, A6, B5, B6, Legal, Foolscap, Letter, Folio, F/GL, Executive, Half Letter, Com10, Monarch, C5, C6, DL Env, 16KAI, Custom
	Bypass Tray		
	ADF		A4-A5, Legal - Half Letter
	Op. Paper Tray		A4, A5, B5, B6, Legal, Foolscap, Letter, Folio, F/GL, Executive, Half Letter, Com10, Monarch, C5, C6, DL Env, 16KAI, Custom
Media Type		Std.Tray	Plain Paper, Recycled Paper, Middle Thick Paper, Thick Paper, Thin Paper, Letterhead, Labels, Preprinted, Special Paper 1-3, Color Paper
		Bypass Tray	Plain Paper, Recycled Paper, Middle Thick Paper, Thick Paper, Thin Paper, Transparency, Letterhead, Labels, Preprinted, Special Paper 1-3, Color Paper, Envelope
		Op.Paper Feed Unit	Plain Paper, Recycled Paper, Middle Thick Paper, Thick Paper, Thin Paper, Transparency, Letterhead, Labels, Preprinted, Special Paper 1-3, Color Paper
Paper Weight	Std/Optional Tray		52-220g/m2 (14-59lb)
	Bypass tray		52-220g/m2 (14-59lb)
	Duplex		60-163g/m2 (16-44lb)
ARDF	Capacity		50 sheets (80g/m^2, 20lb)
	Original size	Simplex	Legal SEF, Letter SEF, Half Letter SEF, Half Letter LEF, F("8x"13), A4 SEF, B5 SEF, A5 SEF, A5 LEF, Custom: Width 128-216mm, Length 139.7-1260mm
		Duplex	Legal SEF, Letter SEF, Half Letter SEF, Half Letter LEF, F("8x"13), A4 SEF, B5 SEF, A5 SEF, A5 LEF, Custom: Width 128-216mm, Length 139.7-355.6mm
	Original weight	Simplex	52 - 128 g/m2 (14 - 34 lbs. bond)
		Duplex	60 - 105 g/m2 (17 - 28 lbs. bond)

Mainframe			
Internal Finisher	Paper Size		A6 to Legal
	Paper Weight		52 to 256 g/m² (14-28 lb) - Max 90 g/m² (24 lb) for staple
	Tray Capacity		250 sheets A4 LT or smaller
	Staple Capacity		50 Sheets A4 or LT (30 sheets LG)
	Staple Position		1 position (top)
	Staple Replenishment		5000 staples / cartridge
Rating Power Spec.	US version		120-127V, 60Hz
Power Consumption	US version	Max.	1500W or less
		Energy Saver	8W or less M052/M053 model : 5W, M054 8W
Warm-up Time			20 sec or less
Energy Saver Mode			20 sec or less

Enhanced Features	
APS/AMS	Copy: No/YES, Document Box:Yes/Yes
Auto Tray Switch	Yes
Directional Magnification	Yes
Directional Size Magnification	Yes
Photo Mode	Yes
Auto Start	Yes
User Program	Yes
Electronic Sorting	Yes
Image Rotation	Yes
Series Copy	No

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Paper Handling

Type		SEF/LEF	Size	Input Tray			Duplex
				Standard	Option	Bypass	
				Tray	Paper Feed Unit	Tray	
Plain Paper	A4	SEF	210x297	A	A	B	Supported
		LEF	297x210	N	N	N	N
	B5	SEF	182x257	A	A	B	Supported
		LEF	257x182	N	N	N	N
	A5	SEF	148x210	B	B	B	Supported
		LEF	210x148	B	N	B	N
	B6	SEF	128x182	B	B	B	Supported
		LEF	182x128	N	N	N	N
	A6	SEF	105x148	B	N	B	N
		LEF	148x105	N	N	N	N
	DLT	SEF	11" x 17"	N	N	N	N
	Legal	SEF	8 1/2”x14”	A	A	B	Supported
	Letter	SEF	8 1/2”x11”	A	A	B	Supported
		LEF	11”x 8 1/2”	N	N	N	N
	Half Letter	SEF	5 1/2” x 8 1/2”	A	A	B	Supported
		LEF	8 1/2” x 5 1/2”	B	N	B	N
	Executive	SEF	7 1/4”x10 1/2”	B	B	B	Supported
		LEF	10 1/2”x7 1/4”	N	N	N	N
	F/GL	SEF	8” x 13”	B	B	B	Supported
	Foolscap	SEF	8 1/2” x 13”	B	B	B	Supported
	Folio	SEF	8 1/4” x 13”	B	B	B	Supported
	8 Kai	SEF	267 x 390	N	N	N	N
	16 Kai	SEF	195 x 267	B	B	B	Supported
		LEF	267 x 195	N	N	N	N
Envelope	Com10	SEF	4 1/8” x 9 1/2”	B	B	B	N
	Monarch	SEF	3 7/8” x 7 1/2”	B	B	B	N
	C6	SEF	114 x 162	B	B	B	N
	C5	SEF	162 x 229	B	B	B	N
	DL Env	SEF	110 x 220	B	B	B	N
Custom		Width	mm	98-216	98-216	64-216	98-216
			inch	3.86-8.50	3.86-8.50	2.52-8.50	3.86-8.50
		Length	mm	140-356	160-356	140-900	160-356
			inch	5.52-14.01	6.30-14.01	5.52-35.43	6.30-14.01

A= Supported Size is Automatically Detected B= Supported Size is NOT Automatically Detected C= Not Supported

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Copier Specifications

Copier Specifications			
1st copy speed		Book/ARDF	Less than 10 sec. (A4, LT SEF)
Maximum original size		Book	A4 (210 x 297mm) / Letter (215.9 x 279.4mm)
		ARDF	A4 (210 x 297mm) / Letter (215.9 x 279.4mm) Legal (215.9 x 355.6mm)
Copy Speed	Single Document Multiple Copy	Book	M052: 45cpm (A4), 47cpm (LT) M053/M054: 50cpm(A4), 52cpm (LT)
		ARDF	M052: 45cpm (A4), 47cpm (LT) M053/M054: 50cpm(A4), 52cpm (LT)
	Multiple Document Single Copy	ARDF	M052: 45cpm (A4), 47cpm (LT) M053/M054: 50cpm(A4), 52cpm (LT)
Multiple copy			Up to 999
Resolution (H x V)	Scanning		Book : 600x600 dpi, ARDF : 600x300 dpi
	Printing		600 x 600dpi
Grayscale			256 levels
Reduction / Enlargement		Fix	US: 65, 78, 93, 129, 155%
		Custom	Book: 25 - 400% in 1% step ARDF: 25 - 200% in 1% step
Image density adjustment			Yes, Manual only: 9 levels
Copy mode (Image quality mode)			Text / Photo / Text Photo
Memory copy			Yes
Duplex copy			Yes
Interrupt copy			Yes
Combine copy			2 in 1, 4 in 1, 8 in 1
ID Card copy			No

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Printer Specifications

Printer Specifications			
CPU			533MHz
RAM	Std./Max.		1GB
Hard Disk Drive	Std.		128GB
PDL			PCL5e/6, PostScript 3, IPDS(Option)
Fonts	Std.		PCL:45 fonts + International Fonts 13 fonts PostScript 3: 136 fonts IPDS: 108 fonts (Option)
Connectivity	Host Interface	Std.	Ethernet(100BASE-TX/10BASE-T), USB 2.0, USB 2.0 (Type A & B)
		Option	WirelessLAN (IEEE802.11a/b/g), GigaEthernet
	Network Protocol		TCP/IP (IPv4, IPv6), IPX/SPX, Bonjour
	Operating Systems/Network		Windows XP/ Vista/Server 2003/Server2008 (32 bit, 64bit)/7 MacOS (v 8.6 or later), Novell Netware(v 6.5 or later)

Scanner Specifications

Scanner Specifications		
Scanning Speed	B&W	over 30ipm (A4, SEF, 200dpi, Mono 1bit、MH compression with ARDF)
	Color	over 30ipm (A4, SEF, 200dpi with FC letter/photo/ JPEG standard compression with ARDF)
Scanning Resolution	Std	ARDF B&W : 100,200,300,400,600dpi Color : 100,200,300dpi Book B&W : 100,200,300,400,600dpi Color : 100,200,300,400,600dpi
	Default	200dpi
Auto Size Detection (US Model)	Contact Glass	Not available
	ARDF	Not available
SRGB Support		No
Network Interface		GigaEthernet, 100/10Base-TX, IEEE802.11a/b/g
Protocol		Network: TCP/IP Scan to E-mail: POP, SMTP Scan to Folder: SMB, FTP,NCP

Compression Method		B&W	move to "File Format"
		Color	move to "File Format"
Scan Mode			BW Text, BW Text/Line Art, BW Text/Photo, BW Photo, Gray Scale, Full Color Text/Photo, Full Color Glossy Photo, Auto Color Select
Image Density			Yes (adjustable with 7 steps)
Image Rotation			Yes
SADF/Batch Mode			Yes
Mixed Size Mode			Not available

File Format	Compression On / Off	Data / Compression Method
Single Page TIFF	On	BW 1bit / MMR,MR,MH
	Off	BW 1bit, BW Grayscale, FullColor
Multi Page TIFF	On	BW 1bit / MMR,MR,MH
	Off	BW 1bit, BW Grayscale, FullColor
Single Page JPEG	On	BW Grayscale, FullColor/ JPEG
	Off	-
Single Page PDF	On	BW 1bit, BW Grayscale, FullColor
	Off	BW 1bit, BW Grayscale, FullColor
Multi PagePDF	On	BW 1bit, BW Grayscale, FullColor
	Off	BW 1bit, BW Grayscale, FullColor
High Compression PDF	On	BW Grayscale, FullColor
	Off	-

Scan to Email		
Requirement (Mail Protocol, Transmission Protocol, Protocol)		POP, SMTP
Authorization Function		SMTP authentication, POP before SMTP authetication
Resolution	Std	ARDF B&W : 100,200,300,400,600dpi Color : 100,200,300dpi Book B&W : 100,200,300,400,600dpi Color : 100,200,300,400,600dpi
	Default	200dpi
Max Email Address in HDD		2000

Register Group Address in HDD			100
Maintain Email Address in HDD			Direct input on operation panel, Web Image Monitor, Smart Device Monitor for Admin
Input of Destination E-mail Address via Soft Key			Yes
Search method of Email Address in HDD			By Name and Email Address
LDAP Search			Yes
Max Address Numbers Per Send			500
Attention			To: Cc: Bcc:
Email Size	with Restriction		128Kb-102, 400Kb
	w/o Restriction		2Gb
Input Subject	Manual		Max 128 Characters
	User Pre-register		No
	Preset		Default : Hostname "RNPxxxxxx" (xxxxxx is MAC address)
Input Main Body Text	Manual		Max 80 Charachters
	User Pre-register		5 BODY MESSAGES. 80 CHARACTERS X 5 LINES PER A BODY MESSAGE Title name of the body message: Max. 20 characters per a name
	Preset		Message: “This e-mail included attached file sent from xxxx(machine model name).”
Input File Name			Yes
File type		TIF(Single page), TIF(Multiple page), JPEG(Single page), PDF(Single Page), PDF(Multiple page), High Compression HPDF(Single Page)、High Compression HPDF(Multiple Page)	
Program User Settings Divide and send Email (If the file size exceed the max size.)		Yes	
Resend		Yes	
Max Address Numbers Per Send (Combination with Folder)		Input via Address Book	500
		Manual input	Condition 1(Max address can select or input): 100
			Condition 2(Max address allow in single operation): 500
			Condition 3(Combination of addresses: Max): 550

Scan to Folder		
Protocol Support		SMB, FTP, NCP
Security		Client folder log-in (log-in name and password), Encryption of log-in name and password during transmission
Resolution	Std	ARDF B&W : 100,200,300,400,600dpi (For B&W High Compression PDF & 600dpi: maximum up to A5/Half Letter) Color : 100,200,300dpi Book B&W : 100,200,300,400,600dpi Color : 100,200,300,400,600dpi (For color High Compression PDF & 400dpi: maximum up to A5/Half Letter For color High Compression PDF&600dpi: maximum up to A6)
	Default	200dpi
Register client folder address in HDD		2000
Maintain client folder address in HDD		Direct input on operation panel, WebImageMonitor, SmartDeviceMonitor
Destination client folder address input via soft key		Yes SMB: Network path -> Client folder -> Password FTP: Server -> Network path -> User account -> Password -> Port Number NCP: Network path -> User account -> Password -> Bindery or NDS
Search client folder		Yes
Max. client folder numbers per send		100
Simultaneous Transmission		Mail 500 Folder 50
Group address (Number of destinations able to register per group)		Max. 100 destinations (To Folder: 50, To E-mail: 100) e.g. 100 destinations 50 folders included >>>OK 100 destinations 51 folders included>>>Failure
Input File Name		Yes
Scan to File size		2000MB
File Size when combined Scan to Folder & Scan to E-mail		128-102,400KB, Default = 2,048KB (With restriction) 725MB (Without restriction) (Scan to E-mail file size applied)
File Type		TIF(Single page), TIF(Multiple page), JPEG(Single page), PDF(Single Page), PDF(Multiple page), High Compression PDF(Single Page)、High Compression PDF(Multiple Page)
Program User Settings		Up to 10 programs
Divide the File in Scan to Email		Yes (By page or size) / No, Default = Yes(By size)

(If the file size exceed the max size.)	(When Scan to PC combine with Scan to E-mail)	
Resend	Yes / No, Default = Yes	
Max Address Numbers Per Send (Combination with E-mail)	Input via Address Book	Condition 1(Max address can select or input): 50
		Condition 2(Max address allow in single operation): 50
		Condition 3(Combination of addresses: Max): 550
	Manual input	Condition 1(Max address can select or input): 50
		Condition 2(Max address allow in single operation): 50
		Condition 3(Combination of addresses: Max): 550

Network Twain			
OS			
Resolution		B&W	
		Color	
Scan Mode			
Image Adjustment			Brightness / Contrast / Threshold / Gamma Adjustment /Halftone Pattern
Stamp Endorse			Date / Page Number / Text
Endorse Stamp			Not available

Fax Specification

Fax Specification		
Circuit		PSTN/ PBX
Compatibility		ITU-T, G3
Resolution		8 x 3.85 line/mm, 200 x 100dpi (std.) 8 x 7.7 line/mm, 200 x 200dpi (std.) 8x15.4line/mm, 16x15.4 line/mm, 400x400dpi (with optional SAF memory)
Compression Method		MH/MR/MMR/JBIG
Scanning Speed	ARDF	Less than 1.0 second (A4 SEF, 200dpi)
	Book	Less than 2.0 seconds (A4 SEF, 200dpi)

Fax Specification		
Scan Page per Minute(DF used)	A4/LT SEF	40spm
	A4/LT LEF Image Rotation	LEF not available
Modem Speed		33.6K-2400bps with Auto Fallback
Transmission Speed		G3: Approx.2 seconds (200x100 dpi, JBIG, ITUT #1 chart TTI off, memory transmission) G3: Approx.3 seconds (200x100dpi, MMR, ITUT #1 chart, TTI off, memory transmission)
Page Memory Size	Std	4MB
	with Optional SAF Memory	8MB
SAF Memory Size	Std	4MB (Approx. 320 pages)
	with Optional SAF Memory	28MB, 2240 pages (ITU-T No.1 Chart)
Memory Backup		1 hour
Smoothing		Yes
TTI/RTI		Yes
CSI		Yes
Quick Dial		2000 locations
Group Dial		Yes (100 group)
Program		Yes (100 program)
Redial		Yes (Automatic/Manual) Default 5 times, 5 minutes Max 254 times Can be set between 0-250 minutes.
Direct Fax Number Entry		Yes
Dual access		Yes
User Code		Yes
Page Counter		Yes
Auto Reduction		Not Availble
Wild Cards		Yes
Summer Time		Yes
ID code programming Memory Lock ID Code		Standard (4 digits)
SID Code (Sender ID)		Yes
Programming by OMR		Not Available
User Function Key		Yes(3 keys)
Night Timer		Not Available
Energy Saver		Yes
LCD Prompt		Yes
Remaining Memory Indication		Yes
Clock Adjustment		Yes
User Parameter Settings		Yes
User Data Transfer		Yes

Fax Transmission Specifications	
Immediate Transmission	Yes
Parallel Memory Transmission	Yes
Memory Transmission	Yes
Serial Broadcasting	Yes
Send Later	Yes
Error Correction Mode	Yes
Page Retransmission	Yes
Forwarding	Yes
Image Rotation	Not Available
Book Fax	Yes
Closed Network Transmission	Yes
Double Sided Transmission	Yes

Fax reception Specifications	
Automatic Reception	Yes
Manual Reception	Yes
Substiute Reception	Yes
Authorized Reception	Yes
Multi Copy	Yes
Closed Network	Yes
Reception Time Printing	Yes
Center Mark	Yes
Checkered Mark	Yes
Economy Printing Mode	Not Available
Duplex Reception	Yes

Telephone Specification	
Handset/Telephone	Not Available
Telephone Connection	Not Available
Monitor Speaker	Yes
Automatic Voice Message	
On Hook Dial	Yes
Tone Transmission	Yes
Pause	Yes
Pulse/Tone Selection	Yes
Chain Dialing	Not Available
Reception Mode Selection	Yes
Automatic Fax/Phone change	Not Available
Reception Mode Switch over (remote)	Not Available
Answering Machine interface	Not Available

Telephone Specification	
Reception Mode Switching Timer	Not Available
Auto Answer Delay Time	Yes (SP Mode)
Busy Tone Detection	Yes
Silent Ringing Detection	Not Available

Internet Fax Specification	
Requirement of Mainframe	G3 fax option is required.
Number of Address	2,000 HDD storage
Email Address Input	From LCD operation panel, Web Image Monitor, Smart Device Monitor for Admin
Attention	“to" or “bcc" (select only one), max 500 attentions
Destination Combination	Internet Fax + G3 Fax, Internet Fax to PC + G3 Fax
Network	LAN: Local Area Network Ethernet/10Base-T, 100Base-TX IEEE802.11a/g(wireless LAN) Wireless LAN (IEEE 802.11a/b/g) , 1000Base-T
Transmit Function	E-mail
Scan Line Density	200 x 100 dpi(Standard character), 200 x 200 dpi(Detail character), 200 x 400 dpi(Fine character: optional) , 400 x 400 dpi(Super Fine character: optional)
Original Size: Scanning width	A4
Communication Protocol	Transmission: SMTP, TCP/IP Reception: POP3, SMTP, IMAP4, TCP/IP
Email Format	Single/Multi-part, MIME Conversion Attached file forms: TIFF-F(MH, MR MMR compression)
Authentication Method	SMTP-AUTH, POP before SMTP, A-POP
Internet Communication	Send and receive e-mail with a computer that has an e-mail address
Email Send Functions	Automatic conversion of sent documents to e-mail format and e-mail transmission. Memory transmission only.
Email Receive Functions	Automatic detection and printing of appended TIFF-F(MH) files and ASCII text. Memory reception only.

Lan Fax Specification	
Paper Size	A4 (default for EU/Asia model), Letter (default for NA model), Legal, B5, A5
Resolution	Super Fine (400 x 400 dpi), Detail (200 x 200 dpi) *default, Standard (200 x 100 dpi)

Lan Fax Specification	
Number of Address	500
OS	1)Windows 2000/XP/Server2003/Vista/Server2008/7(32bit) 2)Windows XP/Server2003/Vista/Server2008/7/Server2008R2(64bit)
LAN-Fax Editor Support Language	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Norwegian, 9.Danish, 10.Finnish, 11.Hungarian, 12.Czech, 13.Polish, 14.Portuguese, 15.Russian Condition: OS need to have the same language.
Memory	OS recommended spec
CPU	OS recommended spec
HDD	OS recommended spec

IP Fax Specification	
Network	LAN: Local Area Network Ethernet/10base-T, 100base-TX, , IEEE802.11a,g (wireless LAN) , 1000Base-T
Scan Line Density	8 x 3.85 lines/mm, 200 x 100 dpi(Standard character), 8 x 7.7 lines/mm, 200 x 200 dpi(Details character), 8 x 15.4 lines/mm(Fine character: optional expansion memory required), 16 x 15.4 lines/mm, 400 x 400 dpi(Super Fine character: optional expansion mem
Original Size	A4
Max Scanning Size	Standard: A4, 216mm x 356mm, Irregular: 216mm x 1200mm
Transmission Protocol	Recommended: T.38, TCP, UDP/IP communication, SIP(RFC 3261 compliant), H.323 v2
Compatible Machines	IP-Fax compatible machines
IP-Fax Transmission Function	Specify an IP address and send faxes to an IP-Fax compatible fax through a network. Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.
IP-Fax Reception Function	Receive faxes sent from an IP-Fax compatible fax through a network. Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway

Document Server	
HDD Capacity	160
Max Stored Documents	3,000
Max Pages Per Documents	2,000
Max Pages of All Stored Documents	15000

Security Specifications	
Network User Authentication	Yes
IP Address Filtering	Yes
MAC Address Filtering	No
HDD Overwrite	Yes
HDD Encryption	Yes
Secure Print	Yes
Encrypted Secure Print	Yes
Encrypted PDF Mode	Yes
IP Sec	Yes
Secure Sockets Layer(SSL)	Yes
SNMPv3	Yes
IPv6	Yes
Transport Layer Security	Yes
Removable HDD	No

Options

ARDF (Standard)		
Original Size	Simplex	Legal SEF, Letter SEF, Half Letter SEF, Half Letter LEF, F("8x"13), A4 SEF, B5 SEF, A5 SEF, A5 LEF, Custom: Width 128-216mm, Length 139.7-1260mm
	Duplex	Legal SEF, Letter SEF, Half Letter SEF, Half Letter LEF, F("8x"13), A4 SEF, B5 SEF, A5 SEF, A5 LEF, Custom: Width 128-216mm, Length 139.7-355.6mm
Original Weight	Simplex	52 - 128 g/m2 (14 - 34 lbs. bond)
	Duplex	60 - 105 g/m2 (17 - 28 lbs. bond)
Stack Capaciy		50 (20lb)

Paper Feed Unit TK 1090 (550 x 1 - Without Casters)		
Paper Tray	Paper Size	A4, A5, B5, B6, Legal, Foolscap, Letter, Folio, F/GL, Exective, Half Letter, Com10, Monarch, C5, C6, DL Env, 16KAI, Custom
(550x1)	Paper Weight	52-220g/m2 (14-59lb) (14 lb. Bond - 80 lb. Cover)
	Paper capacity	550 sheets x 3 trays (3 units installable)
	Dimensions (WxDxH)	450 x 515.6 x 150 mm / 17.72 17.8 x 20.30 x 5.91 inch
	Weight	9 kg / 19.84 19.9 lb

Paper Feed Unit TK 1100 (550 x 1 With casters)			
Paper Tray	Paper Size		A4, A5, A6, B5, B6, Legal, Foolscap, Letter, Folio, F/GL, Exective, Half Letter, Com10, Monarch, C5, C6, DL Env, 16KAI, Custom
(550x1)	Paper Weight		52-220g/m2 (14-59lb) (14 lb. Bond - 80 lb. Cover)
(with caster)	Paper capacity		550 sheets x 1 tray (1 unit installable)
	Dimensions (WxDxH)		450 627 x 515.6 635 x 220 mm / 17.72 24.7 x 20.30 25.0 x 8.667 inch
	Weight		12 kg / 26.46 lb 26.5 lb

MFP Supported Environments

Windows Environment					
	Type	PCL5e	PCL6	PostScript3	XPS
Windows XP	Professional	Yes	Yes *5	Yes *5	No
	Home Edition	Yes	Yes *5	Yes *5	No
Windows Server 2003/2003R2	Standard	Yes *2	Yes *6	Yes *6	No
	Enterprise	Yes *2	Yes *6	Yes *6	No
	Datacenter Edition	No	No	No	No
	Web Edition	No	No	No	No
Windows Server 2008	Standard	Yes	Yes	Yes	Yes
	Enterprise	Yes	Yes	Yes	Yes
	Datacenter Edition	No	No	No	No
Windows Server 2008 R2	Standard	Yes	Yes	Yes	Yes
	Enterprise	Yes	Yes	Yes	Yes
	Datacenter Edition	No	No	No	No
Windows Vista	Home Basic	Yes *3	Yes *3	Yes *3	Yes *3
	Home premium	Yes *3	Yes *3	Yes *3	Yes *3
	Business	Yes *3	Yes *3	Yes *3	Yes *3
	Enterprise	Yes *3	Yes *3	Yes *3	Yes *3
	Ultimate	Yes *3	Yes *3	Yes *3	Yes *3
Windows 7	Home Basic	No	No	No	No
	Starter	No	No	No	No
	Home Premium	Yes	Yes	Yes	Yes
	Professional	Yes	Yes	Yes	Yes
	Enterprise	Yes	Yes	Yes	Yes
	Ultimate	Yes	Yes	Yes	Yes

[Remarks]
*1...See "Point & Print" and "Terminal Service and Citrix Metaframe"
*2...Cluster function is not supported.
*3...Service Pack 1 or later is recommended
*4...SP4 or later
*5...SP2 or later
*6...SP1 or later

Point and Print

Window OS		Drivers			
Server	Client (Push to)	PCL5e	PCL6	PostScript3	XPS
Windows Server 2008	Vista	Yes	Yes	Yes	Yes
	XP	Yes	Yes	Yes	No
	W2K Pro	Yes	Yes	Yes	No
	Vista	Yes	Yes	Yes	No
Windows Server 2003/2003R2	XP	Yes	Yes	Yes	No
	W2K Pro	Yes	Yes	Yes	No
Windows XP Professional	Vista	Yes	Yes	Yes	No
	XP	Yes	Yes	Yes	No
	W2K Pro	Yes	Yes	Yes	No

Terminal Service and Citrix MetaFrame

Targeted to support Citrix environment.

MAC OS

	PostScript3
Mac OS X Native (v. 10.2 or Later)	Y

Novell Netware

Currently, Ricoh does not provide custom gateway. Please refer to Novell website to download generic gateway.

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SAP R/3 Environment
Targeted to support SAP PVP environment.

Driver Features					
	PCL 6	PCL 5e	PostScript3		XPS
			Windows XP/Vista/7	Mac OSX	
Job Binding	N	N	N	N	N
Send to Document Server	Y	Y	Y	Y	Y
Sample Print	Y	Y	Y	Y	Y
Locked Print	Y	Y	Y	Y	Y
Reduce/Enlarge (Scaling)	Y	Y	Y	Y	Y
Reduce/Enlarge Centering	Y	N	Y	N	N
Collate	Y	Y	Y	Y	Y
Layout (N-up)	Y	Y	Y	Y	Y
Poster	N	N	N	N	N
Duplex	Y	Y	Y	Y	Y
Punch	N	N	N	N	N
Staple	Y	Y	Y	Y	Y
Front Cover Sheet	Y	Y	N	Y *1	N
Front and Back Cover Sheets	Y	Y	N	N	N
Slip Sheet	Y	Y	N	Y N	Y
Chaptering (Page Layouting)	Y	N	N	N	N
Chaptering (Single Page Inserting)	Y	Y	N	N	N
Chaptering (Page Block Inserting)	Y*2	N	N	N	N
User Defined Pages	N	Y	N	N	N
Tab Stock Printing	N	N	N	N	N
Mirror Image Print	N	N	Y	N	N
Negative Image Print	N	N	Y	N	N
Dithering	N	N	Y	Y	N
Edge Smoothing	Y	Y	Y	Y	N
Toner Saving	Y	Y	Y	Y	Y
Watermark	Y	Y	Y	Y	N
Form Overlay	N	N	N	N	N
Header/Footer	N	N	N	N	N
Adjust image position	N	N	N	N	N
Binding Margins	N	N	N	N	N

Driver Features					
	PCL 6	PCL 5e	PostScript3		XPS
User ID	Y	Y	Y	Y	Y
User Code	Y	Y	Y	Y	Y
Rotate Print	Y	Y	Y	Y	Y
Reverse Order Print	N Y	N	Y	Y	Y
Do not print Blank pages	N - *3	N - *3	N - *3	N - *3	N - *3
Edge to Edge Print	Y	Y	Y	Y	N
*1: First page/OtherPage					
*2: For PCL 6, [Multi Pages] would be corresponding function.					
*3: Instead of setting with printer driver, it can be set with operation panel.					

Utility Software

Software	Description
For GW Controller Font Manager	This software enables you to use screen fonts.
Smart Device Monitor for Admin	This software enables you to manage and monitor printers and other devices over the network.
DeskTopBinder – SmartDeviceMonitor for Client	This software enables you to access networked printers to print, monitor or to receive notifications. With DeskTopBinder Lite you can connect client computers to I/O devices enabling you to efficiently manage data.
Device Graphic Update Module	Device Graphic Update Module provides bitmap images used to represent the various statuses of devices graphically within Smart Device Monitor or Web Smart Device Monitor. Available on website.
Printer Utility for Mac	This is a utility for Macintosh that provides access to several network printing administrative features.
PS Descriptions	PPD for Mac By interacting with the Adobe PostScript 3 controller in the device, this PPD is able to produce an accurate representation of the screen image.
Mac OS X PPD Installer	This PPD installer is used to install a PPD (Postscript Printer Description) file on Mac OSX. PPD files contain descriptions of printer capabilities such as paper sizes, number of input trays and duplexing. Once the PPD file is installed on the system using the PPD installer, the PS driver that comes bundled with Mac OS X can use the information in the PPD to control the print device and enable

Software	Description
	full functionality. It supports the Mac OS X 10.1 or later. Please see the Readme file for information about compatibility with versions of Mac OS X.
LAN FAX Driver	This software enables you to fax documents directly from your computer. The Address Book Editor and Cover Sheet Editor are installed as well. This software requires the optional fax unit to be installed on the machine.
PCL 6 Driver	Printer driver for B/W printing in Windows. It supports HP PCL XL commands and is optimized for the Windows GDI. High performance printing can be expected.
PCL 5e Driver	Printer driver for printing in Windows. It supports HP PCL 5e commands.
Post Script Driver	By interacting with the Adobe PostScript 3 controller in the device, this driver is able to produce an accurate representation of the screen image.
GW Controller Network TWAIN Driver	TWAIN scanner driver for network connections with new features Combine/Series, compatible with SNMP V3and Network Connection Tool.

Other MFP Support Information
Not Applicable

Counters

- User Tools / Counter → Counter → OK →Print → Start
- User Tools / Counter → Arrow Down → System Settings → OK→ Arrow up until Administrator Tools → OK→Arrow up until Display / Print Counter → OK → Print → Start
- Maximum 8 digits

Paper

Non Recommended Throughput Material

Refer to pages in the Operators Instructions Hardware Guide.

Do not use any of the following kinds of paper or a fault might occur:

- Aluminum Foil, Carbon paper,
- Conductive paper
- Paper meant for an inkjet printer
- Bent, folded, or creased paper
- Torn paper
- Thermal fax paper
- Art paper
- Paper with perforated lines
- Hemmed-edge paper
- Tab stock
- Slippery paper
- Perforated paper
- Rough paper
- Thin paper with little stiffness
- Paper with a dusty surface

Special Paper

Not Applicable

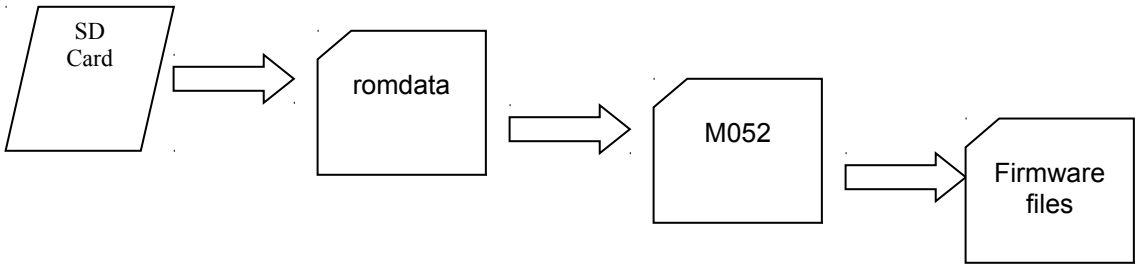
Firmware Information

Firmware

Firmware SD Card	Firmware Type
ADF_MARCY	ADF_MARCY
Fax	Fax
Finisher_BLOCK	Finisher_BLOCK
Language Install	Lang
MediaPrint	MediaPrint
Network Support	NetworkSupport
NetworkDocBox	NetDocBox
OpePanel.EXP	LCDC
Option PctBrdg	Option PctBrdg

Firmware SD Card	Firmware Type
PCL	PCL
Printer	Printer
PS3/PDF	PS3/PDF
RemoteFax	RemoteFax
RPCS	RPCS
Scanner	Scanner
System/Copy	System/Copy
Web Support	Web Support
Web Uapl	Web Uapl

SD Card Arrangement



Contact Information

Name	Contact
Technical Services Call Center (Hotline)	Ricoh: (800) 537-4264 Savin/Gestetner: (800) 291-6044 Lanier: (800) 333-3147
Application Help Desk (Software Issues)	Ricoh Phone Card: 2 Call - 000781MIU, 5 Call - 000900MIU Savin Phone Card: 2 Call - 12992, 5 Call - 12993 Gestetner Phone Card: 2 Call - 12994, 5 Call - 12995
National Reclamation Center	(800) 557-4264 http://www.nrc-usa.com
Technology Solutions Center Web Site	http://www.tscweb.net
Ricoh Web Site	http://www.ricoh-usa.com/
Savin iLINC Web Site	http://www.savin.com
Headquarter Web Sites	Ricoh Corporation: http://www.ricoh-usa.com Savin Corporation: http://www.savin.com Gestetner Corporation: http://www.gestetnerusa.com/ Lanier Corporation: http://www.lanier.com
Material Safety Data Sheets	(800) 336-MSDS (6737)
Ricoh University	973.882.2200. http://www.ricohuniversity.com

Training Information

Documentation

Description	EDP Code	RFG E-Source Number
M052 M053 M054 Service Manual	TBA	rfg050018
M052 M053 M054 Parts Catalog	TBA	rfg050019
M052 M053 M054 Point-to-Point	N/A	rfg050020
M052 M053 M054 Operator Instructions Manual	N/A	rfg050021

Please refer to the http://www.ricohuniversity.com/ web site for the most up to date training information.

Product Support Guide
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Revisions

1.0 Original
2.0 Remove 12K Toner added rfg numbers for documentation
3.0 Corrected Ordering number M054 – Added internal finisher – removed Connectivity Cafe Link -misc minor corrections
4.0 Updated cabinet and fax 32 Mb memory ordering information.
5.0 Updated Yield of PM Parts
6.0 Added Hotspot and Optional Counter Type A ordering information
7.0 Added Supply Order information for Lanier and Savin branded models